Cost of Care Analysis – Affordability Dashboard Methodology
Spring 2023

Overview

This document summarizes methodology for the Cost of Care tab of the Affordability Dashboard available at civhc.org. This tab provides an overview of high-level service category health care spending and more detailed outpatient spending categories in Colorado from 2017-2021 using data from the Colorado All Payer Claims Database (CO APCD).

This report enables users to identify the highest health care cost drivers and to monitor trends in spending (plan paid and patient paid amounts) to help determine areas to investigate further or identify strategies to reduce costs. More specifically, the analysis allows users to:

- Examine total (plan and patient paid amount) and per person per year (PPPY) spending and the percent of spending that is occurring in different categories.
- Evaluate how spending varies across Colorado Division of Insurance (DOI) regions.
- Identify specific sub-categories of outpatient services that are driving the highest cost.

Key considerations

- The analysis includes all public and private health insurance payers submitting data to the CO APCD, which represents the majority of covered lives (70% of medically insured) in the state. The CO APCD *does not* include roughly half of the self-insured employer covered lives and *does not* include federal programs such as Tricare, Indian Health Services and the VA.
- This analysis is based on fee-for-service payments only and *does not* include supplemental payments, capitated payments or payments made through Alternative Payment Models (APMs).
- Payments represent total allowed amounts (plan and patient paid) for the professional/provider portion of the claim only.
- Telehealth services are included.

Definitions and Methods

Medical and pharmacy claims and member eligibility data from the Colorado All Payer Claims Database (CO APCD) were used to calculate total and PPPY spending.

- **Payers:** Claims (and capitation encounters with payer-reported fee-for-service equivalents) and eligibility records were selected for each payer (Commercial, Medicaid, Medicare FFS, and Medicare Advantage) for services incurred in 2017, 2018, 2019, 2020 and 2021. **Note:** Medicare FFS pharmacy data in this report is only available through December of 2020.
- **Major Service Categories:** Claims were classified to six large categories – facility inpatient, facility outpatient, professional, pharmacy, long term care and durable medical equipment (DME).

- o **Note:** Long-Term Care is mostly made up of the Medicaid population. However, a small volume of Medicare Advantage claims are also present. It includes spending for Home and Community Based Services, Long-Term Home Health Care, and Nursing Home services.
- **Outpatient Service Categories:** Within the outpatient category, claims were then classified into key outpatient service subgroups using details such as revenue codes, CPT-4 ®, HCPCS procedure codes, etc.
  - o **Note:** long term care was excluded from calculations under the Outpatient category.
- **Cost Calculations:** Spending, reported as total allowed amounts, were calculated for each service type. Total allowed amounts are calculated by adding any patient liability amounts (deductibles, coinsurance, copay, etc.) to the health insurance plan paid amounts.
- **Per Person Per Year (PPPY) Cost:** Eligibility, calculated as the number of member months for each payer, was used to produce spending PPPY. Separate member months were calculated for medical, and pharmacy coverage.

Assignment of Members and Claims to a Payer Type

The payer types reported are Commercial, Medicaid, Medicare Advantage, Medicare FFS, CHP+ and a combination of all five types labeled, "All Payers."

Claims from the primary payer are assigned to the primary payer type and claims from the secondary payer are assigned to the secondary payer type. This is true for Medicare/Medicaid dual eligible members who have primary coverage through Medicare FFS or Medicare Advantage and secondary coverage through Medicaid. Additionally, claims for CHP+ and Medicaid are mutually exclusive. Medicaid claims with CHP+ indicator are categorized under CHP+ as payer while those without CHP+ indicator are categorized under Medicaid as payer.

Main Service Categories

Spending in the report is provided in six larger categories – facility inpatient, facility outpatient, professional, pharmacy, Long-Term Care, and durable medical equipment. These categories are common and are generally defined by the type of claim the provider of service submitted.

- **Inpatient:** Services delivered at acute care hospitals, skilled nursing facilities (SNF), and hospice where the patient stayed in the hospital overnight. Costs displayed include patient and health plan patients for facility services only, and do not include professional payments which may occur for the same visit.
- **Outpatient:** Services for ambulatory surgery, observation stays, and emergency department visits that did not result in an overnight hospital stay. Costs displayed include patient and health plan patients for facility services only, and do not include professional payments which may occur for the same visit.
- **Professional:** Services provided by a physician or other health care provider for evaluation visits, management visits, and procedures. Note: Professional payments are separate from Inpatient and Outpatient facility payments but often occur as a result of the same visit.
- **Prescription Drugs:** Prescription drug payments reflect only drugs dispensed at a pharmacy. Costs do *not* include any drugs administered by physicians in a facility or office setting, and do *not* reflect any rebates received from drug manufacturers.

- **Long-Term Care:** Medicaid services for Home and Community Based, Long-Term Home Health, and Nursing Home services. In a very small percentage of claims, Long Term Care benefits are paid through the Qualified Medicare Beneficiary (QMB) Program via Medicare Advantage.
- **Durable Medical Equipment (DME):** Equipment and supplies ordered by a health care provider for everyday or extended use. Coverage for DME may include: oxygen equipment, wheelchairs, crutches or home glucose monitors. The payments for DMEs are identified using HCPCS codes.
  - While this category is not displayed in the interactive report, users can access data from supporting excel file. Request data [here](.).

Outpatient Service Categories

The specific types of services within the outpatient category are provided in the table below, with descriptions that define inclusions. The table below also displays a hierarchy, which was used to ensure that the types of services within each of the four main categories are mutually exclusive. For example, within the outpatient facility category, outpatient surgery is designated "1" in the hierarchy. This means that if a member visits the ED for abdominal pain and undergoes an appendectomy as an outpatient, the spending for the member's visits are classified to outpatient surgery only, not the emergency department.

Detailed specifications used to select claims and report payments for each service are available upon request.

Facility Outpatient Service Categories

Type of Service	Description	Hierarchy
Facility Outpatient (Total)	Services for ambulatory surgery, observation stays, and emergency department visits that did not result in an overnight hospital stay. Costs displayed include patient and health plan patients for facility services only, and do not include professional payments which may occur for the same visit.	
Surgery	Outpatient hospital surgical services and some ambulatory surgery facility services. Includes facility services for emergent and elective surgical care.	1
Cardiac Catheterization	Cardiac catheterization lab and related facility service payments.	2
Observation	Hospital services for patients admitted for observation without a hospital overnight stay. Does *not* include observation for outpatient surgery.	3
Emergency Department	Hospital-based ED services (attached or free-standing) for patients discharged from the ED. Does *not* include services for patients seen in the ED and subsequently admitted or transferred for outpatient surgery, cardiac catherization or observation.	4
Hospital Urgent Care Services	Urgent care services that are provided in the hospital. **Does *not* include freestanding urgent care clinics or centers.**	5
Lab	Lab services including chemistries, microbiology, and pathology.	6

Clinic	Includes the following:	6
	• Hospital outpatient and freestanding clinic services for primary and specialty care • Services provided at or by providers at a rural health clinic (RHC) or federally-qualified health center (FQHC). • Free standing urgent care clinics	
Imaging	Diagnostic imaging tests as the combination of x-ray and advanced imaging tests	6
• X-ray	A subcategory of imaging that includes plain films and fluoroscopy diagnostic imaging services.	
• Advanced	A subcategory of imaging that includes CTs, MRIs, PET scans, mammography, ultrasound, and nuclear diagnostic imaging services.	
Drugs	Drugs administered in a facility outpatient setting, including specialty, brand and generic drugs, vaccines and drugs used for diagnostic and imaging procedures. Does *not* include nuclear medicine pharmaceuticals.	6
• Specialty Drugs	A subcategory of drugs (Total Rx) for specialty drugs used in facility outpatient settings. Does not include medication administration.	6
Home Health Care	Skilled care provided in the home, including nursing services, infusions and physical, speech and occupational therapy billed by home health agencies.	6
Other	Includes radiology/chemotherapy administration, hemodialysis, physical therapy. Does *not* include Medicaid long-term home health.	7

Geographical Groupings

Geographic breakdowns are available in the tool for Division of Insurance (DOI) commercial insurance geographic rate setting areas and at the state level. The following is a list of counties in each DOI region:

- **Boulder:** Boulder
- **Colorado Springs:** El Paso, Teller
- **Denver:** Adams, Arapahoe, Broomfield, Clear Creek, Denver, Douglas, Elbert, Gilpin, Jefferson, Park
- **Ft. Collins:** Larimer
- **Grand Junction**: Mesa
- **Greeley:** Weld
- **Pueblo:** Pueblo
- **East**: Alamosa, Baca, Bent, Chaffee, Cheyenne, Conejos, Costilla, Crowley, Custer, Fremont, Huerfano, Kiowa, Kit Carson, Las Animas, Lincoln, Logan, Mineral, Morgan, Otero, Phillips, Prowers, Rio Grande, Saguache, Sedgwick, Washington, Yuma
- **West:** Archuleta, Delta, Dolores, Eagle, Garfield, Grand, Gunnison, Hinsdale, Jackson, La Plata, Lake, Moffat,

Data Caveats

The data used in this analysis have limitations that impact the spending trends and should be considered when interpreting the results.

- By federal regulation, 42 CFR Part 2, payers must exclude claims for substance use disorder prior to submitting claims to the CO APCD. Consequently, cost per person per year may be lower than expected.
- Total pharmacy spending for all payers in the report **has not been adjusted for any rebates** received.
- **Payers appear to have spending drops in 2020**. This drop can be explained by the unusual utilization patterns due to the COVID-19 pandemic.

Medicaid

- **With the exception of Medicaid supplemental hospital payments**, this report **does not include non-claims-based payments** to providers that fall outside of the traditional fee-for-service system.
- In the event that a payer has an arrangement with a provider that involves prospective payments for services (such as capitation payments), the **fee-for-service equivalent is reported on the claim** and counted as spending in the Tableau report.
- **Total pharmacy spend for Medicaid may be inflated** due to redundant claims coming through from both HCPF and the MCOs. CIVHC is actively working with HCPF to identify these redundancies.
- **Medicaid-specific Outpatient Spending details** includes the following:
  a. **Medicaid Fee for Service payments** submitted by the Colorado Department of Health Care Policy and Financing Department (HCPF)
  b. **Behavioral Health payments** to providers submitted by Regional Accountable Entities (RAE)
  c. Medical payments to providers submitted by **Managed Care Organizations (MCO)**

Medicare Fee-For-Service

- Medicare Part D claims are administered by commercial payers. Pharmacy data for the Medicare Fee-for-Service (FFS) population is based on commercial submissions for all years.

Outpatient Spending

- **Other category** contains a high proportion of uncategorized outpatient spending. Claims that make up a high percentage of the category include those for **dialysis, radiation/chemotherapy, cardiac catheterization, and treatment room costs**.

Additional Information

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Service Dates Included
This analysis includes claims data for the following calendar years: 2017, 2018, 2019, 2020 and 2021.

Data Vintage
This report is based off claims data in the CO APCD data warehouse refresh on January 20, 2023. For more information about number of claims in the CO APCD during a particular reporting year and data discovery information regarding payer submissions, please visit our website at civhc.org

For more information about this report, please contact us at info@civhc.org.